



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,777	02/20/2002	Shigeki Matsuda	111995	3646
25944	7590	08/24/2004		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER WONG, EDNA	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/077,777	Applicant(s) MATSUDA ET AL.	
	Examiner Edna Wong	Art Unit 1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

This is in response to the Amendment dated July 15, 2004. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

Claim Objections

Claims **1-5, 9 and 13** have been objected to because of minor informalities.

The objection of claims 1-5, 9 and 13 has been withdrawn in view of Applicants' amendment.

Claim Rejections - 35 USC § 112

Claims **2 and 5** have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claims 2 and 5 under 35 U.S.C. 112, second paragraph, has been withdrawn in view of Applicants' amendment.

Claim Rejections - 35 USC § 103

Claims **1-15** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Matsuda** (US Patent No. 5,645,706).

The rejection of claims 1-15 under 35 U.S.C. 103(a) as being unpatentable over

Matsuda is as applied in the Office Action dated January 15, 2004 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants state that Matsuda fails to disclose a phosphate chemical treatment bath which is substantially free of metal ions other than those which are a component of the film, as recited in the rejected claims, because the bath of Matsuda contains Na^+ which is a metal ion other than an ion which is a component of the film. In response, Matsuda teaches that "the management of the chemical treatment bath basically involves the control of the oxidation-reduction potential. Hence, it is preferable to add main reagents (an acidic chemical containing phosphoric acid, nitric acid, zinc, etc.) in response to the change in the oxidation-reduction potential; however, for a stricter management of the chemical treatment bath, it is preferable to additionally utilize the other electrochemical parameters of the chemical treatment bath, such as the hydrogen ion concentration (PH) and the electric conductivity (EC)" [col. 14, lines 17-26].

Introducing a chemical such as caustic soda is a preferred embodiment for the stricter management of the chemical treatment bath. However, the disclosure of reference must be considered for what it fairly teaches one of ordinary skill in the art, pertinence of non-preferred disclosure must be reviewed in such light. *In re Meinhardt* 157 USPQ 270; and MPEP § 2123.

Thus, the suggested non-preferred embodiment would have been for the less stricter management of the chemical treatment bath by not introducing a chemical such

as caustic soda, and just adding the main reagents (an acidic chemical containing phosphoric acid, nitric acid, zinc, etc.) in response to the change in the oxidation-reduction potential.

Applicants state that Matsuda fails to teach any relationship between the ORP and the sludge content. In response, claim 3 does not recite any relationship between the ORP and the sludge content. It is well settled that unpatented claims are given the broadest, most reasonable interpretation and that limitations are not read into the claims without a proper claim basis therefor. *In re Prater* 415 F. 2d 1393, 162 USPQ 541 (CCPA 1969); *In re Zeltz* 893 F. 2d 319, 13 USPQ 1320.

Applicants state that Matsuda fails to disclose or suggest maintaining an ORP of equal to or greater than 770 mV in the treatment bath. In response, Matsuda teaches that if it is attempted to control the ORP of the treatment bath to 560 mV or greater, then it will be necessary to oxidized the Fe^{2+} to Fe^{3+} (col. 11, lines 60-62). An ORP (AgCl electrode potential) of 560 mV corresponds to 770 mV in terms of the hydrogen standard electrode potential (col. 13, lines 30-47).

Thus, controlling the ORP of the treatment bath to 560 mV or greater is maintaining an ORP of equal to or greater than 770 mV in the treatment bath.

Applicants state that in Matsuda, an Fe-phosphate complex is assumed to be

Art Unit: 1753

"Fe²⁺-H₂PO₄". If such an Fe-complex were to be replenished in a treatment bath having an ORP of equal to or greater than 700 mV, the ORP would be decreased. In response, since the treatment bath is controlled to have an ORP of 560 mV or greater (see above), it appears that the treatment bath would have been replenished with an amount of an Fe-phosphate complex that would provide for an ORP of equal to or greater than 700 mV.

Applicants state that Matsuda does not disclose all of the features recited in claim 9. In response, claim 9 recites "wherein NO, NO₂ and/or N₂O₄ gases". The gases are recited in the alternative, and thus, do not need to be all present.

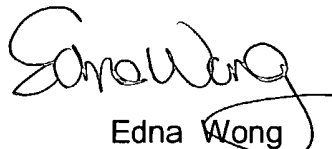
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 3:30 pm, Flex Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Edna Wong
Primary Examiner
Art Unit 1753

EW
August 20, 2004